



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,430	08/15/2003	Peter C. Williams	22188/06671	9883

24024 7590 03/25/2005

CALFEE HALTER & GRISWOLD, LLP  
800 SUPERIOR AVENUE  
SUITE 1400  
CLEVELAND, OH 44114

EXAMINER

NICHOLSON, ERIC K

ART UNIT	PAPER NUMBER
----------	--------------

3679

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/642,430

Applicant(s)

WILLIAMS, PETER C.

Examiner

Eric K Nicholson

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) 45,50 and 53-58 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44,46-49,51,52 and 59-61 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4-2-04 and 2-17-05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Claims 45,50 and 53-58 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 7, 2005. It is noted that applicant states in the response that claims 1-52 and 59-61 read on the elected species. This has not been determined to be so, in addition to claims 53-58 being non-elected the examiner finds that claims 45 and 50 also do not read on the elected species. Independent claim 50 and dependent claim 45 includes features to the threads being buttress threads which was non-elected.

### **Objections**

The application is objected to because of alterations which have not been initialed and/or dated as is required by 37 CFR 1.52(c). A properly executed oath or declaration which complies with 37 CFR 1.67(a) and identifies the application by application number and filing date is required. See page 8,10,11 and 20 and also claims 9 and 34.

Appropriate correction is required.

**Claim Rejections – 35 USC § 112**

Claims 7,9 and 34 rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 9 and 34 include uninitialed hand-written alterations rendering the scope of the claims indefinite. In claim 7 it is unclear how the bore portion is convex or where this convex bore portion is found in the drawings.

**Claim Rejections – 35 USC § 102**

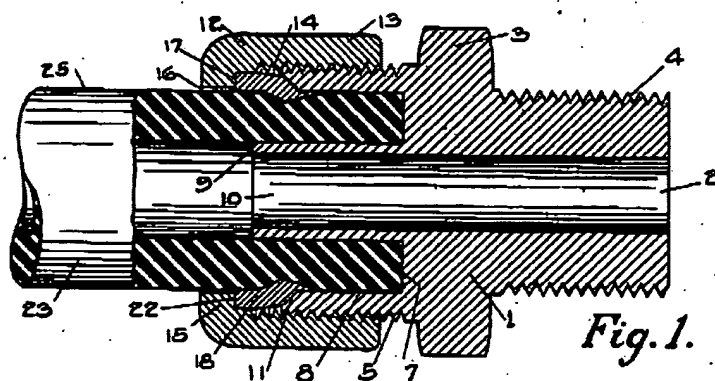
The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4,16-18,27,30 and 51 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. patent 2,152,537 to Couty. The Couty fitting illustrates the features of the present invention with a fitting body 3 and nut 12 threadedly

joined. The body includes a camming surface 11 at an angle of 30-45 degrees with respect to the main axis of the body (page 2, line 25) and a ferrule 18 having a front end engaging the camming surface and a back end engaging a nut drive surface.



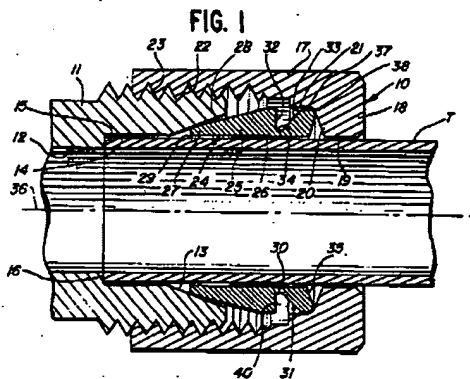
### **Claim Rejections – 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to

which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8,11-25,27-29 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,556,242 to Kowal et al. in view of U.S. patent 2,152,537 to Couty.



The Kowal et al. fitting discloses the claimed device except for the particular angle of the camming surface 28 on the body 11. As noted above, the Couty fitting discloses that it is known in the art to provide a *similar* type coupling wherein the camming surface on the body is between 30 and 45 degrees (see page 2, line 25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the camming surface angle 28 of Kowal et al. to be at an angle of between 30 and 45 degrees such as taught by Couty, in order to

provide a more secure coupling for the inserted tube due by optimizing the resultant compressive forces between the ferrule and the camming surface. As to claims 16 and 19 the size and material of the tube being at least .5 inches or the ferrule being made of stainless steel are features considered old and well known in the pipe coupling art such that one of ordinary skill in the art would readily recognize that pipes are routinely sized according to the desired need the selection of stainless steel in order to avoid corrosion is known, both to the point that they do not patentably define over the prior art as it is well within the general skill of a worker in the art to select a known material or size on the basis of its suitability for the intended use as a matter of obvious design choice.

Claims 9,10,26,31,32,60 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,556,242 to Kowal et al. in view of U.S. patent 2,152,537 to Couty as applied to claims 1-8,11-15,17,18,20-25,27-29 and 52 above and further in view of U.S. patent 3,893,716 to Moreiras et al.. The Kowal et al. and Couty combination as noted above discloses the claimed device however the particular hardness of the ferrule relative to the tube is not specified. Moreiras et al. discloses that it is known in the art to provide a *similar* type coupling wherein it is noted in column 2 that:

**"The tube 11 in the preferred embodiment is cylindrical and is a low carbon steel having a hardness of below 20 on the Rockwell C scale. The tube fitting will also work well with other tube materials including annealed stainless steel and cold drawn steel tubing, but the hardness of the tube must be less than the hardness of the cutting edges of the rear sleeve 14 and of the front sleeve 15 by a hardness difference of at least 15 points on the Rockwell C scale and preferably greater"**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the degree of hardness between the tube and the ferrule to be such as taught by Moreiras et al, in order to provide a more secure coupling for the inserted tube due by optimizing the bite into the tube by the ferrule without over deforming the tube and causing leakage at the bite area.

Claim 33 is rejected under 35 U.S.C. § 103 as being unpatentable over Kowal et al Couty and Moreiras et al. as applied to claims 9,10,26,31,32,60 and 64 above and further in view of U.S. patent 5,934,714 to Sugiyama et al. The combination of Kowal et al Couty and Moreiras et al. as noted above discloses the claimed device except for the particular structure of the ferrule being case hardened Sugiyama et al. discloses that it is known in the prior art to provide a *similar* type coupling with the ferrule 4 being case hardened via carburization (column 1, lines 45-67 continuing on to column 2, lines 1-3) in order to properly bite into the inserted tube. It would have been obvious to one having ordinary skill in the art at



the time the invention was made to harden the ferrule of the combination of Kowal et al. via carburization as taught in the prior art of Sugiyama, in order to provide a more secure coupling for the inserted tube due to increased compressibility of the ferrule into the surface of the inserted tube.

Claims 34-44 and 46-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 4,556,242 to Kowal et al. view of U.S. patent 3,893,716 to Moreiras et al.. The Kowal et al. fitting as noted above discloses the claimed device however the particular hardness of the ferrule relative to the tube is not specified. Moreiras et al. discloses that it is known in the art to provide a *similar* type coupling wherein it is noted in column 2 that:

**"The tube 11 in the preferred embodiment is cylindrical and is a low carbon steel having a hardness of below 20 on the Rockwell C scale. The tube fitting will also work well with other tube materials including annealed stainless steel and cold drawn steel tubing, but the hardness of the tube must be less than the hardness of the cutting edges of the rear sleeve 14 and of the front sleeve 15 by a hardness difference of at least 15 points on the Rockwell C scale and preferably greater"**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the degree of hardness between the tube and the ferrule of Kowal et al. to be such as taught by Moreiras et al, in order to provide a more secure coupling for the inserted tube due by optimizing the bite into the tube

by the ferrule without over deforming the tube and causing leakage at the bite area.

Claim 59 is rejected under 35 U.S.C. § 103 as being unpatentable over Kowal et al and Moreiras et al. as applied to claims 34-44 and 46-49 above and further in view of U.S. patent 5,934,714 to Sugiyama et al. The combination of Kowal et al and Moreiras et al. as noted above discloses the claimed device except for the particular structure of the ferrule being case hardened Sugiyama et al. discloses that it is known in the prior art to provide a *similar* type coupling with the ferrule 4 being case hardened via carburization (column 1, lines 45-67 continuing on to column 2, lines 1-3) in order to properly bite into the inserted tube. It would have been obvious to one having ordinary skill in the art at the time the invention was made to harden the ferrule of the combination of Kowal et al. via carburization as taught in the prior art of Sugiyama, in order to provide a more secure coupling for the inserted tube due to increased compressibility of the ferrule into the surface of the inserted tube.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

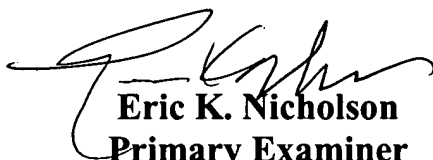
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Nicholson whose telephone number is (703) 308-0829. The examiner can normally be reached on Tuesdays thru Fridays from 7:30 to 6:00. However as of April 5, 2005 the examiner will be located in the new Alexandria Patent Office location and the examiner's new phone number will be 571-272-7086.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola, can be reached on (703) 308-2686. The fax phone number for Technology Center 3600 is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center receptionist whose telephone number is (703) 308-1113.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

ekn  
3/18/05



**Eric K. Nicholson**  
**Primary Examiner**  
**Technology Center 3600**